

# Mineral Industry Surveys

#### For information, contact:

Joyce Ober, Sulfur Commodity Specialist U.S. Geological Survey 983 National Center Reston, VA 20192

Telephone: (703) 648-7717, Fax: (703) 648-7722

E-mail: jober@usgs.gov

Maria Arguelles (Data) Telephone: (703) 648-7990 Fax: (703) 648-7975 E-mail: marguell@usgs.gov

**Internet:** http://minerals.usgs.gov/minerals

#### **SULFUR IN FEBRUARY 2003**

During the month, production of recovered elemental sulfur was 694,000 metric tons, according to the U.S. Geological Survey (USGS). February production was 11% lower than January 2003, and 6% higher than that of February 2002. Shipments were 14% lower than those of January 2003. Producer's ending stocks for February 2003 were 193,000 tons.

Import and export data for February 2003 were not available at the time of publication and will be published in the Sulfur in March 2003 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for January 2003 were estimated to be 144,000 tons; exports were 107,000 tons. Imports of sulfuric acid for January 2003 were 67,000 tons; exports were 12,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information, data collected and published by the Alberta (Canada) Energy and Utilities Board (EUB) in its monthly production report, and information from other published sources. The EUB report is particularly valuable because the majority of Canadian sulfur is produced in that Province, and most of the Canadian sulfur that enters the United States comes from Alberta. When the data problems are solved, the USGS will resume using Census data exclusively.

## TABLE 1 SALIENT SULFUR STATISTICS 1/

#### (Thousand metric tons)

	Prod	uction	Shipments,	
Period	Petroleum 2/	Natural gas	Total	all sources
2002:				
January-December	6,730	1,750	8,480	8,470
January-February r/	1,060	323	1,390	1,380
February	504	148	652	643
March	556	128	685	687
April	581	122	702	683
May	571	150	721	758
June	549	136	685	680
July	561	149	711	715
August	585	125	710	721
September	539	132	671	656
October	541	164	704	695
November	575	154	729	744
December	608	167	776	753
2003:	=			
January r/	610	168	779	782
February p/	539	155	694	675
Total	1,150	324	1,470	1,460

p/ Preliminary. r/ Revised.

TABLE 2 U.S. IMPORTS OF SULFUR 1/

#### (Thousand metric tons and thousand dollars)

	(	Canada		Mex	ico	Total,	all coun	tries 2/
Period	Quantity	,	Value 3/	Quantity	Value 3/	Quantity		Value 3/
2002:								
January	<del></del> 75	e/	501	30	408	112	e/	1,600
February	86	e/	546	30	418	116	e/	978
March	93	e/	722	44	863	147	e/	1,910
April	95	r/ e/	668	30	663	150	r/ e/	1,900
May	89	e/	409	44	1,100	142	e/	1,730
June	<del></del> 67	r/ e/	106	30	774	97	r/ e/	1,270
July	113	r/ e/	405	44	1,140	175	r/ e/	1,960
August	95	r/ e/	1,860	30	944	138	r/ e/	3,240
September	86	r/ e/	1,050	45	1,420	148	r/ e/	3,010
October	108	r/ e/	1,240	29	944	175	r/ e/	3,290
November	91	r/ e/	843	29	942	143	r/ e/	2,230
December	99	r/ e/	1,100	45	1,640	171	r/ e/	3,720
Total	1,100	r/ e/	9,450	430	11,300	1,710	r/ e/	26,800
2003:	<del></del>							
January	100	e/	1,280	44	2,460	144	e/	3,740

e/ Estimated. r/ Revised.

Source: U.S. Census Bureau; as adjusted by U.S. Geological Survey.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> Includes a small quantity from coking operations.

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<sup>2/</sup> May include other countries not listed.

<sup>3/</sup> Declared customs valuation.

TABLE 3 U.S. IMPORTS OF SULFURIC ACID 1/

#### (Thousand metric tons and thousand dollars)

		Canada			Europe		Total	Total, all countries 2/				
		Sulfur			Sulfur			Sulfur				
Period	Quantity	content	Value 3/	Quantity	content	Value 3/	Quantity	content	Value 3/			
2002:												
January	48	16	1,600	33	11	237	141	46	4,220			
February	50	16	1,420	(4/)	(4/)	14	86	27	2,850			
March	82	27	2,190	10	3	70	118	37	3,160			
April	89	29	2,040	16	5	63	111	36	3,820			
May	50	16	1,750	17	6	219	67	22	2,080			
June	<del>-</del> 70	23	1,770	12	4	254	83	27	2,460			
July	37	12	1,300	21	7	541	61	20	2,520			
August		7	878	22	7	224	51	17	5,430			
September	37	12	1,130	19	6	319	59	19	2,120			
October	33	11	1,170	9	3	255	47	15	2,110			
November	51	17	1,390	28	9	1,010	93	31	3,080			
December	45	15	1,310	30	10	548	142	47	2,590			
Total	615	201	17,900	217	71	3,750	1,060	344	36,400			
2003:	_											
January	38	13	1,330	29	9	511	67	22	1,900			

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 4 U.S. EXPORTS OF SULFUR AND SULFURIC ACID 1/

### (Thousand metric tons and thousand dollars)

				Sulfuric acid				
	Sulf	ur		Sulfur				
Period	Quantity	Value 2/	Quantity	content	Value 2/			
2002:								
January	26	2,990	13	4	1,010			
February	59	3,530	11	4	845			
March	34	2,560	9	3	761			
April	30	2,710	12	4	953			
May	8	1,980	13	4	1,070			
June	127	6,650	13	4	1,100			
July	2	189	12	4	887			
August	49	1,340	15	5	1,230			
September	70	6,920	16	5	1,840			
October	76	3,450	11	4	1,040			
November	60	2,400	9	3	839			
December	14	5,300	14	5	1,190			
Total	555	40,000	148	49	12,800			
2003:	_							
January	107	3,440	12	4	1,380			

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

<sup>2/</sup> May include other countries not listed.

<sup>3/</sup> Declared customs valuation.

<sup>4/</sup> Less than 1/2 unit.

<sup>2/</sup> Declared f.a.s. (free alongside ship) valuation.

TABLE 5 U.S. CONSUMPTION OF SULFUR 1/

#### (Thousand metric tons)

	Domestic				
Period	sources 2/	Imports		Consumption	
2002:					
January	712	112	e/	824	
February	584	116	e/	700	
March	653	147	e/	800	
April	653	150	r/e/	803	r/
May	749	142	e/	891	
June	553	97	r/e/	650	r/
July	713	175	r/e/	888	r/
August	672	138	r/e/	810	r/
September	586	148	r/e/	734	r/
October	619	175	r/e/	794	r/
November	684	143	r/ e/	827	r/
December	739	171	r/e/	910	r/
Total	7,920	1,710	r/ e/	9,630	r/
2003:	<del>_</del>				
January	675	144	e/	819	

e/ Estimated. r/ Revised.

TABLE 6 RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES, BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT 1/

#### (Thousand metric tons)

	February	y 2003 p/	Janu	ary 20	003		Total	2003 2/	Year to	date	2002 2/	
District and source	Production	Shipments	Production	;	Shipments	•	Production	Shipments	Production		Shipments	
PAD 1:												
Petroleum and coke	19	20	21		22		40	41	44	r/	45	r/
Natural gas	2	2	2		2		4	4	5		5	
Total	21	21	23		24		44	45	49	r/	50	r/
PAD 2:	_											
Petroleum and coke	80	80	82		83		161	163	146	r/	146	r/
Natural gas	3	3	4		4		7	8	9		9	
Total	83	83	85		88		169	171	155	r/	155	r/
PAD 3: 3/	_											
Petroleum and coke	333	326	389	r/	403	r/	722	729	708	r/	706	r/
Natural gas	34	36	36		37		70	73	104	r/	105	r/
Total	38	362	425	r/	440	r/	793	802	812	r/	811	r/
PAD 4 and 5: 4/												
Petroleum and coke	107	99	119		113		225	212	167	r/	167	r/
Natural gas	115	110	128	r/	118	r/	243	227	205	r/	200	r/
California	82	78	92		91		174	169	128	r/	129	r/
Total	222	209	246	r/	230	r/	468	439	371	r/	366	r/
Grand total	694	675	779	r/	782	r/	1,470	1,460	1,390	r/	1,380	r/

p/ Preliminary. r/ Revised.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> Calculated as shipments minus exports.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> May include revisions to prior months.

<sup>3/</sup> Includes the U.S. Virgin Islands.

<sup>4/</sup> Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

## TABLE 7 COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS 1/

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

		2003		2002
	February	January	Year to date	total
Production	9.05 p/	9.17 r/	9.11	8.48
Shipments	8.80 p/	9.21 r/	9.01	8.47
Exports of sulfur	NA	1.26	1.26	0.56
Imports of sulfur:	_			
Canada	NA	1.18 e/	1.18 e/	1.10 r/
Mexico	NA	0.52	0.52	0.43
Total 2/	NA	1.70 e/	1.70 e/	1.71 r/
Export of H <sub>2</sub> SO <sub>4</sub>	– NA	0.14	0.14	0.15
Import of H <sub>2</sub> SO <sub>4</sub> :	_			
Canada	– NA	0.45	0.45	0.62
Europe	– NA	0.34	0.34	0.22
Total 2/	_ NA	0.79	0.79	1.06
Consumption: 3/	<del>-</del>			
Domestic sources	NA	7.95	7.95	7.92
Imports	NA	1.70 e/	1.70 e/	1.71 r/
Total	NA	9.64	9.64	9.57
Sulfur export values 4/	– NA	\$32	\$32	\$72
Sulfur import values: 4/	= -			
Canada	_ NA	\$13	\$13	\$9
Mexico	NA	\$56	\$56	\$26
Average	NA	\$26	\$26	\$16
H <sub>2</sub> SO <sub>4</sub> export values 4/	NA	\$115	\$115	\$86
H <sub>2</sub> SO <sub>4</sub> import values: 4/	= -			
Canada	NA	\$35	\$35	\$29
Europe	_ NA	\$18	\$18	\$17
Average	NA	\$28	\$28	\$34

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available.

<sup>1/</sup> Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2/</sup> Includes other countries not listed.

<sup>3</sup>/ Because February trade data were not available, February consumption was not determined.

<sup>4/</sup> Average value per ton for most recent data available.